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# DEVELOPING HYDROPOWER IN MONTANA A GUIDE TO PERMITTING AND LICENSING

Montana Joint Water Resources Research Center

Montana State University

In Cooperation With

Montana Department of Natural Resources and Conservation  
and  
U.S. Department of Energy — Region 8

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Prepared by:

Al Cunningham  
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Additional copies of this guide may be obtained from:

Energy Division

Department of Natural Resources and Conservation

32 South Ewing

Helena, Montana 59620

(406) 444-6696

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## I. INTRODUCTION

This guide is intended to help individuals meet the local, state, and federal permit and licensing requirements for constructing hydropower generation facilities in Montana. These requirements address such issues as legal rights, public safety and environmental concerns.

Although numerous agencies have potential permitting or review authority, small hydropower projects are likely to require only a few permits. Nevertheless, the time requirement for obtaining all permits and licenses may be a substantial part of the total project duration.

Although the permitting process may appear to be a barrier to developers, it can be beneficial. By contacting appropriate agency officials during the preliminary design and analysis phase, potential problems with a particular site or design can be spotted early. Appropriate modification then can be made and last minute delays avoided.

Satisfying licensing and permitting requirements is only one of several important phases of developing hydropower projects. A "Hydropower Information Center" has been established to aid developers seeking information not contained in this guide. Inquiries should be directed to:

Hydropower Information Center  
Montana University Joint Water Resources  
Research Center  
Montana State University  
Bozeman, MT 59717  
(406) 994-2891

## II. LOCAL PERMITTING PROCESS

Early in the development process a developer should contact local government offices to determine local permit requirements. The local city and county planning and public works departments can tell the developer which permits are needed. All local permit requirements must be satisfied before federal hydropower licenses will be issued.

The county planning department can inform the developer of any zoning and land-use restrictions. Conditional use permits may be required by the county planning department for projects that occupy or cross land under county jurisdiction. Generating facilities impacting only the developer's property should encounter few problems. More substantial generating facilities may be referred to hearings before the planning commission or county commissioners to determine if the project is in the public interest.

For those areas under county jurisdictions, building and electrical permits from the public works or building department are usually required. Project plans will be reviewed for compliance with Montana building and electrical code requirements. Operations on county roads may also require permits from the public works department.

### III. STATE PERMITTING PROCESS

A hydropower developer in Montana probably will have to obtain at least two permits: a water right permit from the Water Resources Division of the Department of Natural Resources and Conservation, and a 310 permit from the DNRC Conservation Districts Division. Other state agencies that may require permits or otherwise act in a review capacity include: the Department of Health and Environmental Sciences, the Department of State Lands, the Department of Fish, Wildlife and Parks, and the DNRC Engineering Bureau. Requirements of each agency are summarized below.

#### A. Water Right Permit - Water Resources Division, DNRC

A water right permit to use water for a hydropower project is necessary in all cases using: a) surface water — streams, rivers, lakes, natural ponds or undeveloped springs — or, b) a groundwater source — wells, pits or developed springs — with a maximum appropriation of at least 100 gallons per minute.

If the hydropower project is located outside the boundary of a controlled groundwater area, a permit is not required before appropriating groundwater by means of a well or developed spring with a maximum appropriation of less than 100 gallons per minute. In this case, the developer must file Form No. 602, Notice of Completion of Groundwater Development, to obtain a water right.

If the small hydropower developer has an existing water right, the law also provides for changes of that right as it relates to place of diversion, place of use, purpose of use, or place of storage.

Application for Beneficial Water Use Permits (Form No. 600), Notices of Completion of Groundwater Development (Form No. 602), and Applications for Change of Appropriation Water Right (Form No. 606) may be obtained from:

Water Resources Division  
Department of Natural Resources and Conservation  
32 South Ewing  
Helena, MT 59620

These forms can also be obtained from local county clerk and recorder's offices or from any of the Water Rights Bureau offices located in Bozeman, Helena, Missoula, Kalispell, Havre, Glasgow, Lawistown, Miles City, and Billings. At least six months should be allowed to process the permit or change of application request.



B. 310 Permit - Conservation Districts, DNRC

To obtain a 310 permit, the applicant must comply with the provisions set forth in the Natural Stream Bed and Land Preservation Act of 1975. The purpose of this act is to protect and preserve the natural rivers and streams as well as the land and property immediately adjacent to them, to prohibit unauthorized projects and to protect the use of water for any useful or beneficial purpose as guaranteed by the constitution of the State of Montana. The Act applies to all private individuals and corporations on private land. It does not apply to federal or state projects on federal or state land or Indian projects on Indian reservations.

Potential hydropower developers shall present written notice of their projects to local conservation district supervisors. Forms may be obtained at local conservation district offices located in each county, usually with the USDA Soil Conservation Service Office in the county seats. At least 60 days should be allowed to secure a 310 permit.

C. Easement - Department of State Lands

If the proposed hydropower project is on state school trust land or on a navigable stream, the developer must obtain an easement from the Department of State Lands. Two types of easements are available. Permanent easements require the approval of the Board of Land Commissioners, which takes two to three months. Temporary construction permits along or adjacent to permanent easements may be granted by license agreement with the Department. The Department is required to obtain full market value for all easements on state lands.

Inquiries should be directed to:

Land Administration Division  
Department of State Lands  
Capitol Station  
Helena, MT 59620

D. Short Term Authorization - Department of Health and Environmental Sciences

The Department of Health and Environmental Sciences should be contacted during the initial design of project development to determine if a short term authorization, allowing the temporary discharge of pollutants during project construction, will be required. Inquiries should be directed to:

Permitting Section  
Water Quality Bureau  
Dept. of Health & Environmental Sciences  
Cogswall Building  
Helena, MT 59620

DHES may also participate when proposed projects are reviewed for issuance of the 310 permit.

E. Review Authority - Department of Fish, Wildlife and Parks

Although the Department of Fish, Wildlife and Parks does not have permitting authority per se, it is entrusted with extensive review authority and, thus, plays a major role in determining the applicant's eligibility to receive other necessary permits. DFWP is concerned with environmental impacts of proposed projects, including adverse effects on fish, wildlife and recreation. Evaluation considerations include:

- 1) Flow fluctuations on a daily basis or operation of existing flow regime on a seasonal basis.
- 2) Alterations in water temperature or other water quality parameters resulting from location or means of water withdrawal and discharge.
- 3) Impacts associated with increased reservoir operating levels or increases in the extent of winter drawdown.
- 4) Impacts resulting from power line siting, construction and operation.
- 5) Impacts to the riparian habitat, streambank, or streambed caused by power plant construction and operation.
- 6) Potential streambank erosion downstream.
- 7) Frequency and extent of future repair or maintenance.

Project developers should contact DFWP early in the preliminary design phase of the project to identify and resolve possible problems. Address correspondence to:

Director's Office  
Department of Fish, Wildlife and Parks  
1420 East Sixth Avenue  
Helena, MT 59620

F. Flood Plain Development Permit - Engineering Bureau, DNRC

If a hydropower project site is located within the boundaries of a designated floodplain, the applicant should contact the local floodplain administrator, county commission, city planning department, or other designated official. In most cases a permit is necessary before a small hydropower project can be located in a floodplain. Permit applications usually are processed within 60 days of receipt, unless additional information is necessary or an environmental impact statement is required. For more information contact:

Floodplain Management Section  
Engineering Bureau, DNRC  
32 South Ewing  
Helena, MT 59620

#### IV. FEDERAL PERMITS AND LICENSES

##### A. Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC), formerly the Federal Power Commission, is the federal agency responsible for issuing licenses for non-federal hydropower projects under its jurisdiction. The area west of the Continental Divide is administered by the San Francisco office, while the remainder of the state is administered by the Chicago office. Correspondence should be addressed to:

Federal Energy Regulatory  
Commission  
333 Market Street  
San Francisco, CA 94105

Federal Energy Regulatory  
Commission  
31st Floor, Federal Bldg.  
230 S. Dearborn Street  
Chicago, IL 60604

A hydropower project is within the jurisdiction of FERC and must obtain a license or an exemption from licensing if any of the following apply:

- 1) the project will be on a navigable waterway;
- 2) power from the project will enter into utility systems that affect interstate commerce;
- 3) the project will occupy federal land; or
- 4) the project will use surplus water or water power from a federal dam.

Projects that do not affect a navigable waterway, interstate commerce, or federal lands or dams would not be subject to FERC jurisdiction. If there is uncertainty regarding FERC jurisdiction, hydropower developers should contact the national office for an opinion. Address correspondence to:

Director of Hydropower Licensing  
Federal Energy Regulatory Commission  
825 North Capitol Street, N.E.  
Washington, D.C. 20-426

The FERC "Blue Book," entitled Procedures to Apply for Hydropower Licenses and Preliminary Permits, can also be obtained from this address. Information contained in the Blue Book is essential to the Federal Regulatory and Licensing Process.

## 1. FERC - Preliminary Permit

A preliminary permit protects a developer's priority to apply for a license for a particular site for up to three years while an application for a license or a license exemption is being prepared. Although not a prerequisite to licensing, the preliminary permit is highly recommended. The permit does not authorize construction.

An application consists of an initial statement and four exhibits. The initial statement provides the identity of the applicant, the name and location of the proposed project, and the proposed term of the permit. Exhibit 1 is a description of the proposed project. Exhibit 2 consists of a plan and schedule for the activities to be carried out under the permit. This includes data for a final feasibility decision and for a license application data. Exhibit 3 is a statement of cost and financing for the studies to be completed under the preliminary permit. Exhibit 4 is a map showing the location of the project, the physical relationships of its principal features, and proposed boundaries. The original application and 14 copies are sent to the Washington, D.C. office of FERC.

## 2. FERC Licenses

FERC issues licenses to construct and operate hydropower projects for a term of up to 50 years. A new license may be sought when a previous license expires. There are four categories of FERC licenses: minor projects, major projects, unconstructed major projects, and conduit facilities.

### a. Minor Projects:

The short form license application (for project under 5 MW installed capacity) requires information on the size, location, use, and ownership of the project; avoidance of compliance with state water laws and other state laws; and a construction schedule. Four exhibits are required. Exhibit A contains the project description and mode of operation. Exhibit E provides a report on the environmental resources of the site and the impact of the project on those resources. Exhibit F consists of general design drawings of the principal project works. Exhibit G is a map of the project.

### b. Major Projects at Existing Dams:

This category applies to developers of projects with installed capacity greater than 5 MW who seek:



- 1) an initial license for an existing hydropower project;
- 2) a new license for an existing project; or
- 3) an initial license for a proposed hydropower project at an existing dam.

The application requires an initial statement and seven exhibits. The initial statement provides certain basic information necessary for identification of the project, including: the nature of the application; the name, business address, and telephone number of the applicant and its authorized agents; and the name and location of the project. The applicant is also required to state that it has complied with the laws of the state in which the project is located with respect to:

- 1) obtaining property rights and the rights to appropriate, divert, and use water for power purposes;
- 2) obtaining authorization to engage in the business of producing, transmitting, and distributing power; and
- 3) any other business necessary to accomplish the purposes of the requested license.

Exhibit A provides a description of the physical structures and features of the project. This exhibit also includes a listing of any U.S. land enclosed within the project boundary. Exhibit B provides a statement of project operation and resource utilization. Exhibit C provides a construction history and a proposed construction schedule for the project, and Exhibit D provides a statement of costs and financing.

Exhibit E provides a report on the environmental resources of the site, the impacts of the project on those resources, and the proposed measures to mitigate the impacts or to protect and enhance the resources. Exhibit F consists of general design drawings of the principal project works, and Exhibit G is a map of the project.

The FERC "Blue Book" contains exact specifications for this license application.

c. Unconstructed Major Projects:

A license application for an unconstructed project of installed capacity greater than 5 MW consists of the same initial statement and seven exhibits as for "Major Projects at Existing Dams."

Projects in the following categories may qualify for an exemption from the licensing process:

- 1) Projects less than 15 MW that utilize conduits originally built for purposes other than hydropower generation.
- 2) Certain projects not exceeding 5 MW on natural water features.

Applications for exemptions are judged on a case-by-case basis. Applicants should contact the Washington office of FERC for further details.

d. Conduit Facilities

Section 30 of the Federal Power Act authorizes FERC to exempt small conduit hydropower facilities from all or part of the normal licensing requirements. To qualify, a project must be constructed on a conduit, canal, pipeline, etc., built for other primary purposes, such as domestic, agricultural, or industrial use. The project must not require a new dam to provide the increased head necessary for power generation; the powerhouse cannot be placed on federal land; and the project's generating capacity cannot exceed 15 MW. Under FERC regulations, applications will be considered on a case-by-case basis. The application must be acted on within 90 days of notifying the applicant that an acceptable application has been received. If not, the exemption will become effective automatically.

The application consists of an introductory statement and six exhibits. The introductory statement identifies the applicant and locates the project. Exhibits include: 1) a description of the conduit, the purposes for which it is currently used, and the proposed mode of operation; 2) a general location map showing land ownership and the location of the physical structures of the facility; 3) an environmental report that must include, in some detail, the siting of the facility, expected impacts and proposed measures to mitigate them; 4) a description of alternative means of obtaining the equivalent amount of power produced; 5) evidence that the applicant consulted with state and federal fish and wildlife agencies and any determinations of these agencies; and 6) a set of drawings of the facility structures and equipment, which must include a plan, evaluation, and profile view of the power plant and any dam to which the plant would be attached. Detailed specifications can be obtained from FERC.

## B. Other Federal Permits

### 1. U.S. Army Corps of Engineers 404 and Section 10 Permits

The Corps of Engineers has jurisdiction over any project proposed for a navigable waterway (Section 10, River & Harbor Act of 1899). In general, the Corps does not require a separate Section 10 permit in cases where FERC exercises licensing jurisdiction. However, as part of FERC's prelicense consultation process, the Corps does review and comment on FERC applications to ensure the protection of navigational interests.

For projects involving the discharge of dredged or fill material into U.S. waters, a 404 permit is required in addition to a FERC license (Section 404, Federal Water Pollution Control Act).

These permit applications are made on a general form, and approval takes approximately three to six months. They require information on the nature and location of the proposed activity, the time span involved, and the status of other federal, state and local permits. On receipt of the application, the Corps issues public notice and requests comment on the application. After 30 days, the agencies will respond with approval, request a hearing, or request a hold. Comments are also requested from local, county, and state agencies. After approvals from these agencies are granted and a final environmental impact statement is approved, the permit may be issued.

The North Pacific Division of the Corps of Engineers administers the area west of the Continental Divide. The remainder of the state is administered by the Missouri River Basin Division. Correspondence should be addressed to:

Division Engineer  
North Pacific Division  
P.O. Box 2870  
Portland, OR 97205

OR      Division Engineer  
Missouri River Basin  
Division  
Box 103 Downtown Station  
Omaha, NE 68101

### 2. Notice of Proposed Construction - Federal Aviation Administration

The Federal Aviation Administration reviews the project to see if any feature (e.g., a transmission tower) constitutes a hazard to aviation. Applicants must file a Notice of Proposed Construction (FAA Form 7460-1). A project layout showing elevation contours should be included with this

permit application, and information on microwave towers and existing airports in the project area may be required. Approval of this permit requires approximately two months. These forms are available from:

The Federal Aviation Agency  
Northwest Mountain Region  
1790 Pacific Highway S.  
C-68966  
Seattle, WA 98168

3. Memorandum of Understanding - U.S. Forest Service (USFS)

If any part of a proposed project is on U.S. Forest Service lands, a Memorandum of Understanding (MOU) is required from the agency. The FERC preliminary permit requires an MOU before feasibility and impact studies on Forest Service land begin. Because the approval takes approximately three months, a preliminary approval should be obtained from the USFS during the design phase of the project. Some reimbursement may be required. The following information should be provided:

- 1) a general project plan and schedule;
- 2) a description of any roads to be inundated;
- 3) construction, including design, location, and drainage provisions;
- 4) the proposed clearing plan for the reservoir;
- 5) slash disposal and borrow area locations;
- 6) construction methods and impact mitigation; and
- 7) fire prevention measures.

For information contact:

U.S.D.A. Forest Service  
Federal Building  
Box 7669  
Missoula, MT 59807

4. FCC Permit - Federal Communications Commission (FCC)

Hydropower projects using remote radio operation will require a FCC permit. Contact:

Federal Communication Commission  
3256 Federal Building  
Seattle, WA 98174

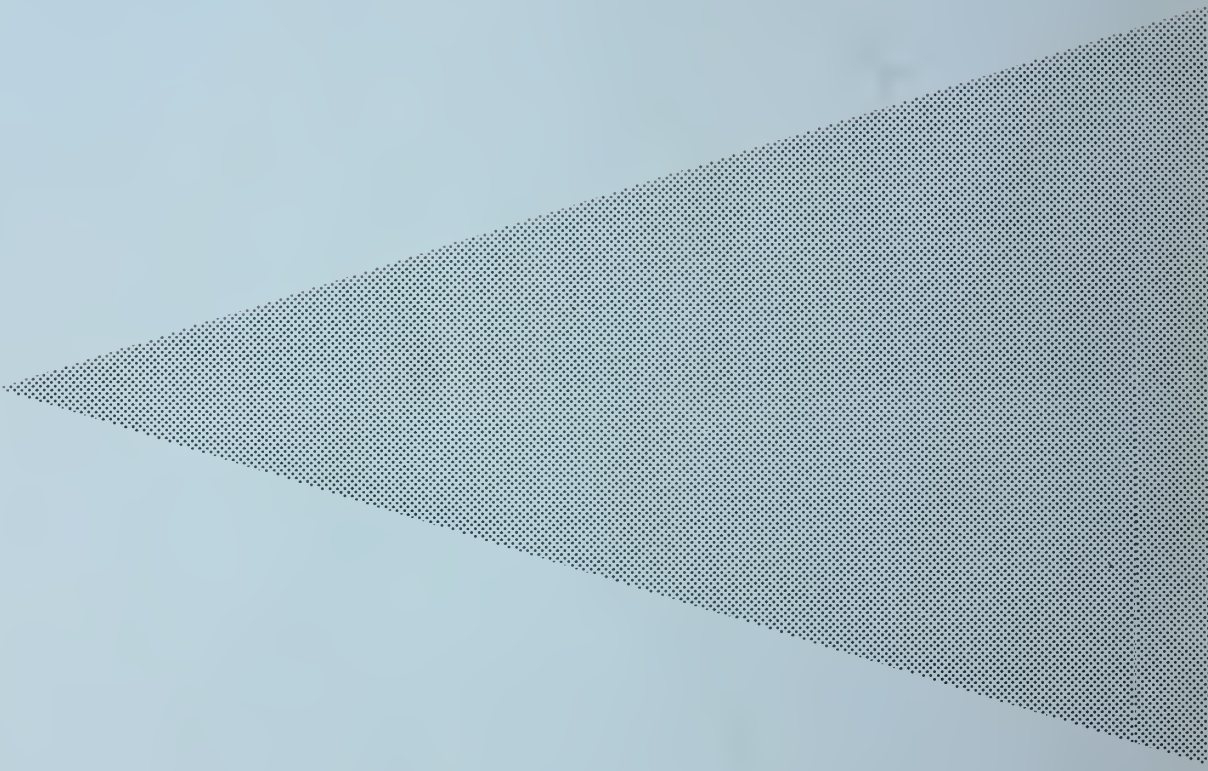
5. Right-of-Way Authorization - Bureau of Land Management

If a project involves permanent use of Bureau of Land Management lands, the developer must obtain a "Right-of-Way Authorization" from the local district BLM office. The applicant must negotiate an annual rent agreement based on current land values. "Temporary Use Permits" and "Construction Materials Sales" permits are also available. For more information contact:

Bureau of Land Management  
Regional Office  
P.O. Box 30157  
Billings, MT 59107







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